## I. OVERVIEW OF THE FUNDING OPPORTUNITY

**Program Announcement for the Department of Defense** 

**Defense Health Program** 

**Congressionally Directed Medical Research Programs** 

# Psychological Health/Traumatic Brain Injury Research Program Applied Behavior Analysis Clinical Study Award

**Announcement Type: Initial** 

Funding Opportunity Number: W81XWH-17-PHTBI-ABACSA

Catalog of Federal Domestic Assistance Number: 12.420 Military Medical Research and Development

#### SUBMISSION AND REVIEW DATES AND TIMES

• **Pre-Application Submission Deadline:** 5:00 p.m. Eastern time (ET), December 20, 2017

• **Application Submission Deadline:** 11:59 p.m. ET, January 4, 2018

• End of Application Verification Period: 5:00 p.m. ET, January 8, 2018

• **Peer Review:** February 2018

• **Programmatic Review:** April 2018

This Program Announcement must be read in conjunction with the General Application Instructions version 20170516. The General Applications Instructions document is available for downloading from the Grants.gov funding opportunity announcement by selecting the "Package" tab, clicking "Preview," and then selecting "Download Instructions."

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## II. DETAILED INFORMATION ABOUT THE FUNDING OPPORTUNITY

## **II.A. Program Description**

Applications to the Fiscal Year 2017 (FY17) Psychological Health and Traumatic Brain Injury Research Program (PH/TBIRP) in the area of Applied Behavior Analysis for Autism are being solicited for the Defense Health Agency (DHA) J9, Research and Development Directorate, by the U.S. Army Medical Research Acquisition Activity (USAMRAA) using delegated authority provided by United States Code, Title 10, Section 2358 (10 USC 2358). As directed by the Office of the Assistant Secretary of Defense for Health Affairs (OASD[HA]), the DHA manages the Defense Health Program (DHP) Research, Development, Test, and Evaluation (RDT&E) appropriation. The U.S. Army Medical Research and Materiel Command (USAMRMC) Congressionally Directed Medical Research Programs (CDMRP) provides PH/TBIRP execution management support aligned with specific DHP research program areas. The execution management agent for this Program Announcement is the CDMRP, with strategic oversight from the DHA.

The PH/TBIRP was established by Congress in FY07 in response to the devastating impact of traumatic brain injury (TBI) and psychological health (PH) issues, including post-traumatic stress disorder, on our deployed Service members in Iraq and Afghanistan. The PH/TBIRP mission is to establish, fund, and integrate both individual and multi-agency research efforts that will lead to improved prevention, detection, and treatment of PH issues and TBI. The vision of the PH/TBIRP is to prevent, mitigate, and treat the effects of traumatic stress and TBI on function, wellness, and overall quality of life for Service members as well as their caregivers and families. The DHA leverages PH/TBIRP funding to complement DHP core research and development funding assigned to study PH and TBI.

## **II.B.** Award Information

The intent of the FY17 PH/TBIRP Applied Behavior Analysis Clinical Study (ABACS) Award is to support a prospective clinical study that will evaluate the effectiveness of the tiered delivery model of Applied Behavior Analysis (ABA) for individuals diagnosed with Autism Spectrum Disorder (ASD).

It is envisioned that findings from the ABACS Award will lead to a thorough and detailed understanding of the outcomes of ABA services delivered to participants diagnosed with ASD who receive tiered model ABA services under the study. Importantly, it is anticipated that findings from the study will determine whether those receiving ABA services demonstrate improvements in cognitive and adaptive functioning.

ABA services are currently provided to TRICARE (i.e., Military Health System [MHS]) beneficiaries through a project known as Comprehensive Autism Care Demonstration (ACD) (https://www.federalregister.gov/documents/2014/06/16/2014-14023/comprehensive-autism-care-demonstration). The ABACS Award will support the collection of clinical data to inform the continuation of ABA services for TRICARE beneficiaries diagnosed with ASD. *Although not* 

required, investigators are strongly encouraged to include TRICARE beneficiaries (participating or not participating in the ACD) diagnosed with ASD in the study population. It is incumbent on the investigator and research team to determine, describe, and justify the participant groups to be compared for a meaningful analysis during the study period (e.g., TRICARE beneficiaries receiving ABA therapy, TRICARE beneficiaries not receiving ABA therapy, civilian (not TRICARE) participants receiving ABA therapy, etc.).

The proposed clinical study should address the following list of variables (not all-inclusive) to provide significant findings that may lead to improvements in the delivery of ABA for TRICARE beneficiaries and civilians diagnosed with ASD:

- ASD symptom severity,
- Cognitive and adaptive functioning,
- ABA services received (to include, but not limited to, frequency, intensity, and dose of ABA services),
- Services other than ABA utilized, and
- Other demographic variables (to include, but not limited to, age, sex, and family characteristics, TRICARE beneficiary, military dependent, etc.).

The anticipated combined direct and indirect costs budgeted for the entire period of performance for an FY17 PH/TBIRP ABACS Award will not exceed \$7 million (M). Refer to Section II.D.5, Funding Restrictions, for detailed funding information.

The following are important aspects of submission for the ABACS Award:

- The proposed clinical study is expected to begin no later than 12 months after the award date.
- The proposed study must be based on sound scientific rationale that is established through logical reasoning and critical review and analysis of the literature.
- The application should demonstrate availability of, and access to, a suitable patient population that will support a meaningful outcome for the study. Although not required, investigators are strongly encouraged to include TRICARE beneficiaries with ASD in their study population. The investigator should discuss how accrual goals will be achieved and how standards of care may impact the study population.
- The proposed study design should include clearly defined and appropriate endpoints.
- The application should demonstrate inclusion of appropriate statistical expertise on the research team and include a clearly articulated statistical analysis plan and a power analysis reflecting sample size projections that will clearly answer the objective(s) of the study.
- The application should include a clearly articulated plan for data management and use of an appropriate database to safeguard and maintain the integrity of the data.

- The application should include a clearly articulated clinical monitoring plan outlining how the study will be monitored.
- The application should include a study coordinator(s) who will guide the clinical protocol through the local Institutional Review Board (IRB) of record and other Federal agency regulatory approval processes, coordinate activities from all sites participating in the study, and coordinate participant accrual.
- The application should clearly demonstrate strong institutional support.
- The investigator will be required to present an update on progress toward accomplishing the study milestones and goals of the project at an annual In-Progress Review (IPR) meeting to be held in the National Capital Region. An IPR meeting will be held at the conclusion of Year 1 and every subsequent year in the period of performance.
- Funded studies are required to file the study in the National Institutes of Health (NIH) clinical trials registry, <a href="www.clinicaltrials.gov">www.clinicaltrials.gov</a>. Refer to the General Application Instructions, Appendix 1, Section C, for further details.
- The selected investigators will be required to submit their data to the National Database for Autism Research (NDAR), which is a secure bioinformatics platform for data sharing for ASD. For more information, consult the NDAR website at <a href="http://ndar.nih.gov/ndarpublicweb.">http://ndar.nih.gov/ndarpublicweb.</a>

Multi-Institutional Clinical Studies: If the proposed clinical study is multi-institutional, plans for the multi-institutional structure governing the research protocol(s) should be outlined in <a href="Attachment 9">Attachment 9</a>: Study Personnel and Organization. The lead organization responsible for developing the master protocol and master consent form should be identified and designated the single point of contact for regulatory submissions and requirements. A single IRB or Ethics Committee (EC) pathway is strongly recommended whenever possible. The master protocol and consent form must be reviewed by the USAMRMC Office of Research Protections (ORP), Human Research Protection Office (HRPO) prior to distribution to the additional sites for IRB/EC review. Communication and data transfer among the collaborating institutions, as well as how specimens and/or imaging products obtained during the study will be handled, should be included in the appropriate sections of the application. A separate intellectual and material property plan agreed upon by all participating institutions is also required for multi-institutional clinical studies.

Research Involving Human Anatomical Substances, Human Subjects, or Human Cadavers: All Department of Defense (DoD)-funded research involving new and ongoing research with human anatomical substances, human subjects, or human cadavers must be reviewed and approved by the HRPO prior to research implementation. This administrative review requirement is in addition to the local IRB or EC review. Local IRB/EC approval at the time of submission is *not* required. The HRPO is mandated to comply with specific laws and requirements governing all research involving human anatomical substances, human subjects, or human cadavers that is supported by the DoD. These laws and requirements will necessitate information in addition to that supplied to the IRB/EC. *Allow a minimum of 2 to 3 months for HRPO regulatory review and approval processes*. Additional time for regulatory reviews may

be needed for clinical studies taking place in international settings. Organizations are encouraged to consider use of site personnel familiar with local/host nation regulatory review requirements. When possible, protocols should be written for research with human subjects and/or human anatomical substances that are specific to the DoD-supported effort outlined in the submitted application. Submission to HRPO of protocols covering more than the scope of work in the DoD-funded award will require HRPO review of the entire protocol as DoD-supported research and may include extensive modifications to meet DoD human subjects protection requirements. Refer to the General Application Instructions, Appendix 1, and the Human Subject Resource Document available on the electronic Biomedical Research Application Portal (eBRAP) "Funding Opportunities & Forms" web page (https://ebrap.org/eBRAP/public/Program.htm) for additional information.

The CDMRP intends that information, data, and research resources generated under awards funded by this Program Announcement be made available to the research community (which includes both scientific and consumer advocacy communities) and to the public at large. For additional guidance, refer to the General Application Instructions, Appendix 2, Section K.

Awards will be made no later than September 30, 2018. For additional information refer to Section II.F.1, Federal Award Notices.

## **II.C.** Eligibility Information

## **II.C.1.** Eligible Applicants

II.C.1.a. Organization: All organizations, including international organizations, are eligible to apply.

Government Agencies within the United States: Local, state, and Federal Government agencies are eligible to the extent that applications do not overlap with their fully funded internal programs. Such agencies are required to explain how their applications do not overlap with their internal programs.

As applications for this Program Announcement may be submitted by extramural and intramural organizations, these terms are defined below.

**Extramural Organization:** An eligible non-DoD organization. Examples of extramural organizations include academia, biotechnology companies, foundations, Government, and research institutes.

**Intramural DoD Organization:** A DoD laboratory, DoD military treatment facility, and/or DoD activity embedded within a civilian medical center.

*Note:* Applications from an intramural organization or from an extramural non-DoD Federal organization may be submitted through a research foundation.

The USAMRAA makes awards to eligible organizations, not to individuals.

## II.C.1.b. Principal Investigator:

Principal Investigators (PIs) must be at or above the level of Associate Professor (or equivalent).

PIs must not be receiving TRICARE reimbursement for ABA services delivered to TRICARE beneficiaries diagnosed with ASD under the ACD.

An eligible PI, regardless of ethnicity, nationality, or citizenship status, must be employed by, or affiliated with, an eligible organization.

The CDMRP encourages all PIs to participate in a digital identifier initiative through Open Researcher and Contributor ID, Inc. (ORCID). Registration for a unique ORCID identifier can be done online at <a href="http://orcid.org/">http://orcid.org/</a>.

## **II.C.2.** Cost Sharing

Cost sharing/matching is not an eligibility requirement.

#### II.C.3. Other

Organizations must be able to access **.gov** and **.mil** websites in order to fulfill the financial and technical deliverable requirements of the award and submit invoices for payment.

Each investigator may submit only one FY17 PH/TBIRP ABACS Award application as a PI.

For general information on required qualifications for award recipients, refer to the General Application Instructions, Appendix 3.

Refer to <u>Section II.H.2</u>, <u>Administrative Actions</u>, for a list of administrative actions that may be taken if a pre-application or application does not meet the administrative, eligibility, or ethical requirements defined in this Program Announcement

## **II.D.** Application and Submission Information

*Extramural Submission* is defined as an application submitted by a non-DoD organization to Grants.gov.

*Intramural Submission* is defined as an application submitted by a DoD organization for an intramural investigator, who is a DoD military or civilian employee working within a DoD laboratory or military treatment facility, or working in a DoD activity embedded within a civilian medical center.

## **II.D.1.** Address to Request Application Package

The eBRAP is a multifunctional web-based system that allows PIs to submit their preapplications electronically through a secure connection, to view and edit the content of their preapplications and full applications, to receive communications from the CDMRP, and to submit documentation during award negotiations and period of performance.

*Submitting Extramural and Intramural Organizations:* Pre-application content and forms can be accessed at eBRAP (<a href="https://eBRAP.org">https://eBRAP.org</a>).

**Submitting Extramural Organizations:** Full application packages can be accessed at Grants.gov.

*Submitting Intramural DoD Organizations:* Full application packages can be accessed at eBRAP.org.

Contact information for the CDMRP Help Desk and the Grants.gov Contact Center can be found in Section II.G, Federal Awarding Agency Contacts.

## **II.D.2.** Content and Form of the Application Submission

Submission is a two-step process requiring both *pre-application* and *full application* as indicated below. The submission process should be started early to avoid missing deadlines. There are no grace periods.

**Pre-Application Submission:** All pre-applications for both extramural and intramural organizations must be submitted through eBRAP (<a href="https://eBRAP.org/">https://eBRAP.org/</a>).

**Full Application Submission:** Full applications must be submitted through the online portals as described below.

**Submitting Extramural Organizations:** Full applications from extramural organizations must be submitted through Grants.gov. Applications submitted by extramural organizations (e.g., research foundations) on behalf of intramural DoD or other Federal organizations or investigators will be considered extramural submissions.

Submitting Intramural DoD Organizations: Intramural DoD organizations may submit full applications to either eBRAP or Grants.gov. Intramural DoD organizations that are unable to submit to Grants.gov should submit through eBRAP. Intramural DoD organizations with the capability to submit through Grants.gov may submit following the instructions for extramural submissions through Grants.gov or may submit to eBRAP. Applications from extramural organizations, including non-DoD Federal organizations, received through eBRAP may be withdrawn. See definitions in Section II.C.1, Eligible Applicants.

For both Extramural and Intramural submissions: A key feature of eBRAP is the ability of an organization's representatives and PIs to view and modify the full application submissions associated with them. eBRAP will validate full application files against the specific Program Announcement requirements and discrepancies will be noted in an email to the PI and in the Full Application Files tab in eBRAP. It is the applicant's responsibility to review all application components for accuracy as well as ensure proper ordering as specified in this Program Announcement.

The application title, eBRAP log number, and all information for the PI, Business Official(s), performing organization, and contracting organization must be consistent throughout the entire pre-application and application submission process. Inconsistencies may delay application processing and limit or negate the ability to view, modify, and verify the application in eBRAP. If any changes need to be made, the applicant should contact the CDMRP Help Desk at <a href="https://help.ebraph.com/help@ebraph.com/

## II.D.2.a. Step 1: Pre-Application Submission Content

During the pre-application process, each submission is assigned a unique log number by eBRAP. This unique eBRAP log number will be needed during the full application submission process.

To begin the pre-application process, first select whether the submitting organization is extramural or intramural, then confirm your selection or cancel. **Incorrect selection of extramural or intramural submission type may result in delays in processing.** 

If an error has been made in the selection of extramural versus intramural and the pre-application submission deadline has passed, the PI or Business Official must contact the CDMRP Help Desk at <a href="help@eBRAP.org">help@eBRAP.org</a> or 301-682-5507.

All pre-application components must be submitted by the PI through eBRAP (<a href="https://eBRAP.org/">https://eBRAP.org/</a>).

PIs and organizations identified in the pre-application should be the same as those intended for the subsequent application submission. If any changes are necessary after submission of the pre-application, the PI must contact the CDMRP Help Desk at help@eBRAP.org or 301-682-5507.

The pre-application consists of the following components, which are organized in eBRAP by separate tabs (refer to the General Application Instructions, Section II.B, for additional information on pre-application submission):

- Tab 1 Application Information
- Tab 2 Application Contacts

Enter contact information for the PI. Enter the organization's Business Official responsible for sponsored program administration (the "person to be contacted on matters involving this application" in Block 5 of the Grants.gov SF424 (R&R) Form). The Business Official must be either selected from the eBRAP list or invited in order for the pre-application to be submitted.

Select the performing organization (site at which the PI will perform the proposed work) and the contracting organization (organization submitting on behalf of the PI, which corresponds to Block 5 on the Grants.gov SF424 (R&R) Form), and click on "Add Organizations to this Preapplication." The organization(s) must be either selected from the eBRAP drop-down list or invited in order for the pre-application to be submitted.

It is recommended that PIs identify an Alternate Submitter in the event that assistance with preapplication submission is needed.

## • Tab 3 – Collaborators and Key Personnel

Enter the name, organization, and role of all collaborators and key personnel associated with the application.

<u>FY17 ABACS Programmatic Panel members</u> should not be involved in any pre-application or application. For questions related to panel members and pre-applications or applications, refer to <u>Section II.H.2.c, Withdrawal</u>, or contact the CDMRP Help Desk at <u>help@eBRAP.org</u> or 301-682-5507.

To preserve the integrity of its peer and programmatic review processes, the CDMRP discourages inclusion of any employee of its review contractors having any role in preapplication or application preparation, research, or other duties for submitted pre-applications or applications. For FY17, the identities of the peer review contractor and the programmatic review contractor may be found at the CDMRP website (<a href="http://cdmrp.army.mil/about/2tierRevProcess">http://cdmrp.army.mil/about/2tierRevProcess</a>). Pre-applications or applications that include names of personnel from either of these companies will be administratively withdrawn unless plans to manage conflicts of interest (COIs) are provided and deemed appropriate by the Grants Officer. Refer to the General Application Instructions, Appendix 3, for detailed information.

#### • Tab 4 – Conflicts of Interest

List all individuals other than collaborators and key personnel who may have a COI in the review of the application (including those with whom the PI has a personal or professional relationship). Refer to the General Application Instructions, Appendix 3, Section C, for further information regarding COIs.

## • Tab 5 – Pre-Application Files

 Letter of Intent (LOI) (one-page limit): Provide a brief description of the research to be conducted. LOIs are used for program planning purposes only (e.g., reviewer recruitment) and will not be reviewed during either the peer or programmatic review sessions.

## • Tab 6 – Submit Pre-Application

This tab must be completed for the pre-application to be accepted and processed.

## II.D.2.b. Step 2: Full Application Submission Content

All contributors and administrators to the application must use matching compatible versions of Adobe software when editing and preparing application components. The use of different software versions will result in corruption of the submitted file. Refer to the General Application Instructions, Section III, for details on compatible Adobe software.

The CDMRP cannot make allowances/exceptions to its policies for submission problems encountered by the applicant organization using system-to-system interfaces with Grants.gov.

Each application submission must include the completed full application package for this Program Announcement. The full application package is submitted by the Authorized Organizational Representative through Grants.gov (<a href="http://www.grants.gov/">http://www.grants.gov/</a>) for extramural organizations or through eBRAP (<a href="https://ebrap.org/">https://ebrap.org/</a>) for intramural organizations. See Table 1 below for more specific guidelines.

## II.D.2.b.i. Full Application Guidelines

Extramural organizations, including non-DoD Federal agencies, must submit full applications through Grants.gov. Submissions of extramural applications through eBRAP may be withdrawn.

**Table 1. Full Application Submission Guidelines** 

Extramural Submissions	Intramural DoD Submissions				
Application Package Location					
Download application package components for W81XWH-17-PHTBI-ABACSA from Grants.gov ( <a href="http://www.grants.gov">http://www.grants.gov</a> ).	Download application package components for W81XWH-17-PHTBI-ABACSA from eBRAP ( <a href="https://ebrap.org">https://ebrap.org</a> ).				
Full Application Page	ckage Components				
SF424 (R&R) Application for Federal Assistance Form: Refer to the General Application Instructions, Section III.A.1, for detailed information.	<b>Tab 1 – Summary:</b> Provide a summary of the application information. <b>Tab 2 – Application Contacts:</b> This tab will be pre-populated by eBRAP; add Authorized Organizational Representative.				
Descriptions of each required file can be found under Full Application Submission Components:  • Attachments • Research & Related Senior/Key Person Profile (Expanded) • Research & Related Budget • Project/Performance Site Location(s) Form • R&R Subaward Budget Attachment(s) Form (if applicable)	Tab 3 – Full Application Files: Upload files under each Application Component in eBRAP. Descriptions of each required file can be found under Full Application Submission Components:  • Attachments • Key Personnel • Budget • Performance Sites  Tab 4 – Application and Budget Data: Review and edit proposed project start date, proposed end date, and budget data prepopulated from the Budget Form.				

Extramural Submissions	Intramural DoD Submissions				
Application Package Submission					
Submit package components to Grants.gov ( <a href="http://www.grants.gov">http://www.grants.gov</a> ). If either the Project Narrative or the budget fails eBRAP validation or if the Project Narrative or the budget needs to be modified, an updated Grants.gov application package must be submitted via Grants.gov as a "Changed/Corrected Application" with the previous Grants.gov Tracking ID prior to the application submission deadline.	Submit package components to eBRAP (https://ebrap.org).  Tab 5 – Submit/Request Approval Full Application: After all components are uploaded and prior to the full application submission deadline, enter your password in the space provided "Enter Your Password Here" and press the "Submit Full Application" button. eBRAP will notify your Resource Manager/Comptroller or equivalent Business Official by email to log into eBRAP to review and to approve prior to the application submission deadline.				
Application Veri	fication Period				
The full application package submitted to Grants.gov may be viewed and modified in eBRAP until the end of the application verification period. During the application verification period, the full application package, with the exception of the Project Narrative and Budget Form, may be modified.	After eBRAP has processed the full application, the organizational Resource Manager/Comptroller or equivalent Business Official and PI will receive an email notification of this status and will be able to view and modify application components in eBRAP. During the application verification period, the full application package, with the exception of the Project Narrative and Budget Form, may be modified.				
Further Information					
Refer to Section III of the General Application Instructions for further information regarding Grants.gov requirements.	Refer to Section IV of the General Application Instructions for further information regarding eBRAP requirements.				

The organization's Business Official or Authorized Organization Representative (or Resource Manager/Comptroller) should approve/verify the full application submission prior to the application verification deadline.

Application viewing, modification, and verification in eBRAP are strongly recommended, but not required. *The Project Narrative and Budget cannot be changed after the application submission deadline.* Prior to the full application deadline, a corrected or modified full application package may be submitted. Other application components may be changed until the end of the application verification period, the full application cannot be modified.

Material submitted after the end of the application verification period, unless specifically requested by the Government, will not be forwarded for processing.

The full application package must be submitted using the unique eBRAP log number to avoid delays in application processing.

## **II.D.2.b.ii.** Full Application Submission Components:

• Extramural Applications Only –

**SF424** (**R&R**) **Application for Federal Assistance Form:** Refer to the General Application Instructions, Section III.A.1, for detailed information.

• Extramural and Intramural Applications –

#### **Attachments:**

Each attachment to the full application components must be uploaded as an individual file in the format specified and in accordance with the formatting guidelines listed in the General Application Instructions, Appendix 4.

For all attachments, ensure that the file names are consistent with the guidance. Attachments will be rejected if the file names are longer than 50 characters or incorrect file names that contain characters other than the following: A-Z, a-z, 0-9, underscore, hyphen, space, and period. In addition, there are file size limits that may apply in some circumstances. Individual attachments may not exceed 20 MB and the file size for the entire full application package may not exceed 200 MB.

The Project Narrative is NOT the formal clinical study protocol. Instead, all essential elements of the proposed clinical study necessary for scientific review must be included as directed in Attachment 1 (the Project Narrative) and Attachments 6,7, 8 and 10 described below. Failure to submit these attachments as part of the application package will result in rejection of the entire application.

• Attachment 1: Project Narrative (15-page limit): Upload as "ProjectNarrative.pdf." The page limit of the Project Narrative applies to text and non-text elements (e.g., figures, tables, graphs, photographs, diagrams, chemical structures, drawings) used to describe the project. Inclusion of URLs that provide additional information to expand the Project Narrative and could confer an unfair competitive advantage is prohibited and may result in administrative withdrawal of the application.

Describe the proposed project in detail using the outline below.

Background: Describe in detail the rationale for the study. Provide a detailed literature review and describe the preliminary studies and/or preclinical data that led to the development of the proposed study. Include a discussion of any current clinical use of ABA services under investigation within the ASD field. The background section should clearly support the choice of study variables (as noted under Section II.B, Award Information, and others deemed important) and should explain the basis for the study questions and/or study hypotheses. This section should establish the relevance of the study and explain the applicability of the proposed

findings, particularly on how results from the study will provide a thorough and detailed understanding of the outcomes of ABA services delivered to participants diagnosed with ASD through the tiered model, particularly TRICARE beneficiaries.

- Objectives/Specific Aims/Hypotheses: Provide a description of the purpose and objectives of the study with detailed specific aims and/or study questions/hypotheses.
   These specific aims should be consistent with the specific aims and associated tasks described in the Statement of Work.
- Study Design: Describe the study to be performed and outline the proposed methodology in sufficient detail to show a clear course of action. Describe potential challenges and alternative strategies where appropriate.
  - Define the study variables, outline why they were chosen, and describe how they will be measured. Include a description of appropriate controls and the endpoints to be tested. Studies should investigate the study variables noted under Section II.B, Award Information.
  - Describe the study populations and inclusion and exclusion criteria that will be used (e.g., TRICARE beneficiaries receiving ABA therapy, TRICARE beneficiaries not receiving ABA therapy, civilian (not TRICARE beneficiaries) participants receiving ABA therapy). Although not required, investigators are strongly encouraged to include TRICARE beneficiaries (participating or not participating in the ACD) diagnosed with ASD in the study population.
  - Describe the methods that will be used to recruit a sample of human subjects from
    the accessible population (e.g., convenience, simple random, stratified random).
     Although not required, investigators are strongly encouraged to include
    TRICARE beneficiaries (participating or not participating in the ACD)
    diagnosed with ASD in the study population.
  - Describe the human subject-to-group assignment process (e.g., randomization, block randomization, stratified randomization, age-matched controls, alternating group, or other procedures), if applicable. Explain the specific actions to accomplish the group assignment (e.g., computer assignment, use of table of random numbers).
  - If using psychometric measures, describe their reliability and validity.
- Statistical Plan and Data Analysis: Describe the statistical model and data analysis plan with respect to the study objectives. Specify the approximate number of human subjects to be enrolled. If multiple study sites are involved, state the approximate number to be enrolled at each site. Include a complete power analysis to demonstrate that the sample size is appropriate to meet the objectives of the study. If a subpopulation of a recruited sample population will be used for analysis, complete a statistical analysis to ensure appropriate power can be achieved within the subpopulation study.

Attachment 2: Supporting Documentation: Combine and upload as a single file named "Support.pdf." Start each document on a new page. If documents are scanned to pdf, the lowest resolution (100 to 150 dpi) should be used. The Supporting Documentation attachment should not include additional information such as figures, tables, graphs, photographs, diagrams, chemical structures, or drawings. These items should be included in the Project Narrative. Any additional material viewed as an extension of the Project Narrative will be removed or may result in administrative withdrawal of the application.

There are no page limits for any of these components unless otherwise noted. Include only those components described below; inclusion of items not requested will result in the removal of those items or may result in administrative withdrawal of the application.

- References Cited: List the references cited (including URLs, if available) in the Project Narrative using a standard reference format that includes the full citation (i.e., author[s], year published, title of reference, source of reference, volume, chapter, page numbers, and publisher, as appropriate).
- List of Abbreviations, Acronyms, and Symbols: Provide a list of abbreviations, acronyms, and symbols.
- Facilities, Existing Equipment, and Other Resources: Describe the facilities and equipment available for performance of the proposed project and any additional facilities or equipment proposed for acquisition at no cost to the award. Indicate whether or not Government-furnished facilities or equipment are proposed for use. If so, reference should be made to the original or present Government award under which the facilities or equipment items are now accountable. There is no form for this information.
- Publications and/or Patents: Include a list of relevant publication URLs and/or patent abstracts. If publications are not publicly available, then copies of up to five published manuscripts may be included in Attachment 2. Extra items will not be reviewed.
- Letters of Organizational Support: Provide a letter (or letters, if applicable), signed by the Department Chair or appropriate organization official, confirming the laboratory space, equipment, and other resources available for the project. Letters of support not requested in the Program Announcement, such as those from members of Congress, do not impact application review or funding decisions.
- Letters of Collaboration (if applicable): Provide a signed letter from each collaborating individual or organization that will demonstrate that the PI has the support or resources necessary for the proposed work, including access to TRICARE beneficiary population(s), if applicable. If an investigator at an intramural organization is named as a collaborator on an application submitted through an extramural organization, the application must include a letter from the collaborator's

Commander or Commanding Officer at the intramural organization that authorizes the collaborator's involvement.

- Intellectual Property: Information can be found in Code of Federal Regulations,
   Title 2, Part 200.315 (2 CFR 200.315), "Intangible Property."
  - Intellectual and Material Property Plan (if applicable): Provide a plan for resolving intellectual and material property issues among participating organizations.
- Data and Research Resources Sharing Plan: Describe how data and resources generated during the performance of the project will be shared with the research community. Refer to the General Application Instructions, Appendix 2, Section K, for more information about the CDMRP expectations for making data and research resources publicly available.

The selected investigator's data must be submitted to the NDAR, a secure bioinformatics platform for data sharing for ASD. For more information, consult the NDAR website at <a href="http://ndar.nih.gov/ndarpublicweb">http://ndar.nih.gov/ndarpublicweb</a>.

- Quad Chart: The Quad Chart template is a one-page PowerPoint file that must be downloaded from eBRAP at <a href="https://ebrap.org/eBRAP/public/Program.htm">https://ebrap.org/eBRAP/public/Program.htm</a>, completed and saved as a PDF file using Adobe Acrobat Reader.
- Attachment 3: Technical Abstract (one-page limit): Upload as "TechAbs.pdf." The technical abstract is used by all reviewers. Abstracts of all funded research projects will be posted publicly. *Do not include proprietary or confidential information.* Use only characters available on a standard QWERTY keyboard. Spell out all Greek letters, other non-English letters, and symbols. Graphics are not allowed.

Technical abstracts should be written using the outline below:

- Background: Briefly present the ideas and rationale behind the proposed clinical study.
- Objective/Hypothesis: State the objective to be reached or the hypothesis to be tested
- Specific Aims: State the specific aims of the study.
- Study Design: Briefly describe the study design including appropriate controls.
- Impact/Military Benefit: Briefly describe how the proposed project will have an impact on ABA service delivery as well as improvements in cognitive and adaptive function for TRICARE beneficiaries and others living with ASD.
- Attachment 4: Lay Abstract (one-page limit): Upload as "LayAbs.pdf." The lay abstract is used by all reviewers. Abstracts of all funded research projects will be posted

publicly. *Do not include proprietary or confidential information*. Use only characters available on a standard QWERTY keyboard. Spell out all Greek letters, other non-English letters, and symbols. Graphics are not allowed.

Lay abstracts should be written using the outline below:

- Clearly describe the objectives and rationale for the proposed study in a manner readily understood by readers without a background in science or medicine.
- Describe the ultimate applicability and impact of the research.
  - What types of patients will it help, and how will it help them?
  - What are the potential clinical applications, benefits, and risks?
- Briefly describe how the proposed project will benefit TRICARE beneficiaries and other individuals living with ASD.
- Attachment 5: Statement of Work (SOW) (six-page limit): Upload as "SOW.pdf." The suggested SOW format and examples specific to different types of research projects are available on the eBRAP "Funding Opportunities & Forms" web page (<a href="https://ebrap.org/eBRAP/public/Program.htm">https://ebrap.org/eBRAP/public/Program.htm</a>). For the Applied Behavior Analysis Clinical Study Award mechanism, use the SOW format example titled "SOW for Clinical Research." The SOW must be in PDF format prior to attaching.

The SOW should include a list of major tasks that support the proposed specific aims, followed by a series of subtasks outlined related to the major tasks and milestones within the period of performance. The SOW should describe only the work for which funding is being requested by this application and, as applicable, should also:

Include the name(s) of the key personnel and contact information for each study site/subaward site.

Indicate the number (and type, if applicable) of research subjects (animal or human) and/or human anatomical samples projected or required for each task and at each site. Refer to the General Application Instructions, Appendix 1, for additional information regarding regulatory requirements.

Briefly state the methods to be used.

For studies with prospective accrual of human subjects, indicate quarterly enrollment targets.

Identify cell line(s) and commercial or organizational source(s) to be used. If human anatomical substances (including cell lines) will be used, specify whether or not identifiable information is accessible to the research team by any means.

- Attachment 6: Human Subject Recruitment and Safety Procedures (no page limit): Upload as "HumSubProc.pdf." The Human Subject Recruitment and Safety Procedures attachment should include the components listed below.
  - Study Population: Describe the target population (to whom the study findings will be generalized) and the nature, approximate number, and pertinent demographic characteristics of the accessible population at the study site(s) (population from whom the sample will be recruited/drawn). Demonstrate that the research team has access to the proposed study population. Furthermore, discuss past efforts in recruiting human subjects from the target population for previous clinical studies (if applicable). Address any potential barriers to accrual and plans for addressing unanticipated delays. Include justification of any age, race, ethnicity, or sex limitations provided.
  - Inclusion/Exclusion Criteria: List the inclusion and exclusion criteria for the proposed clinical study. Inclusion/exclusion criteria should take into consideration the specific risk profile of the studies to be conducted and the standard of care for that patient population. Provide detailed justification for exclusions.
    - Inclusion of Women and Minorities in Study: Consistent with the Belmont Report, "Ethical Principles and Guidelines for the Protection of Human Subjects," and Congressional legislation, special attention is given to inclusion of women and/or minorities in studies funded or supported by the USAMRMC. This policy is intended to promote equity both in assuming the burdens and in receiving the benefits of human subjects research. Include an appropriate justification if women and/or minorities will be excluded from the clinical study.
  - Description of the Recruitment Process: Explain the methods for identification of potential human subjects (e.g., medical record review, obtaining sampling lists, healthcare provider identification).
    - Describe the recruitment process in detail. Address who will identify potential human subjects, who will recruit them, and what methods will be used to recruit them.
    - If human subjects will be compensated for participation in the study, include a detailed description of and justification for the compensation plan.
    - Describe the recruitment and advertisement materials. The recruitment materials should not be coercive or offer undue inducements and should accurately reflect the study.
  - Description of the Informed Consent Process: Specifically describe the plan for obtaining informed consent from human subjects.
    - For the proposed clinical study, provide a draft, in English, of the Informed Consent Form.

- Identify who is responsible for explaining the study, answering questions, and
  obtaining informed consent. Include a plan for ensuring that human subjects'
  questions will be addressed during the consent process and throughout the study.
- Include information regarding the timing and location of the consent process.
- Address issues relevant to the mental capacity of the potential human subject (e.g., altered capacity due to brain injury, stress/life situations, or human subject age, administration of any mind-altering substances such as tranquilizers, conscious sedation or anesthesia), if applicable.
- Address how privacy and time for decision making will be provided and whether
  or not the potential human subject will be allowed to discuss the study with
  anyone before making a decision.
- Consider the need for obtaining ongoing consent or for re-assessing capacity over the course of a long-term study and describe any relevant procedures to assure continued consent.
- Describe the plan for the consent of the individual's Legally Authorized Representative (LAR) to be obtained prior to the human subject's participation in the study. State law defines who may act as the LAR. The local IRB of record should be consulted for guidance regarding who can serve as LAR for research at the study site. Note: The PI must describe a clear intent to benefit for human subjects who cannot give their own consent to participate in the proposed clinical study to be in compliance with Title 10 United States Code Section 980 (10 USC 980) (<a href="http://www.gpo.gov/fdsys/pkg/USCODE-2011-title10/pdf/USCODE-2011-title10-subtitleA-partII-chap49-sec980.pdf">http://www.gpo.gov/fdsys/pkg/USCODE-2011-title10/pdf/USCODE-2011-title10-subtitleA-partII-chap49-sec980.pdf</a>). If applicable, refer to the General Application Instructions, Appendix 1, for more information.
- Assent: If minors or other populations that cannot provide informed consent are included in the proposed clinical study, a plan to obtain assent (agreement) from those with capacity to provide it, or a justification for a waiver of assent, should be provided. PIs should consult with their local IRB to identify the conditions necessary for obtaining assent.
- Screening Procedures: List and describe any evaluations (e.g., laboratory procedures, history, or physical examination) that are required to determine eligibility/suitability for study participation and the diagnostic criteria for entry. Note that some screening procedures may require a separate consent or a two-stage consent process. Informed consent must be obtained prior to initiation of any procedures for the purpose of determining eligibility.

#### Risks/Benefits Assessment:

• Foreseeable risks: Clearly identify all study risks, including potential safety concerns and adverse events. Study risks include any risks that the human subject is subjected to as a result of participation in the clinical study. Consider

psychological, legal, social, and economic risks as well as physical risks. If the risks are unknown, this should be stated. If applicable, any potential risk to the study personnel should be identified.

## Risk management and emergency response:

- Describe how safety surveillance and reporting to the IRB will be managed and conducted.
- ❖ Describe all safety measures to minimize and/or eliminate risks to human subjects and study personnel or to manage unpreventable risks. Include safeguards and planned responses such as dose reduction or stopping criteria based on toxicity grading scales or other predetermined alert values.
- ❖ Discuss the overall plan for provision of emergency care or treatment for an adverse event for study-related injuries, to include who will be responsible for the cost of such care.
- ❖ Address any special precautions to be taken by the human subjects before, during, and after the study (e.g., medication washout periods, dietary restrictions, hydration, fasting, pregnancy prevention).
- ❖ Describe any special care (e.g., wound dressing assistance, transportation due to side effects of study intervention impairing ability to drive) or equipment (e.g., thermometers, telemedicine equipment) needed for human subjects enrolled in the study.
- ❖ If the IRB determines that a study presents greater than minimal risk to human subjects, the DoD requires an independent research monitor with expertise consistent with the nature of the risk(s) identified within the research protocol. If applicable, refer to the General Application Instructions, Appendix 1, for more information on study reporting authorities and responsibilities of the research monitor.
- **Potential benefits:** Describe known and potential benefits of the study to the human subject, a specific community, or society.
- Attachment 7: Intervention (no page limit): Upload as "Intervention.pdf." The Intervention attachment should include the components listed below.
  - Description of the Intervention: Identify the intervention to be tested and describe
    the particular outcomes. Summarize other clinical studies (if applicable) that examine
    the safety and efficacy of the intervention.
  - **Study Procedures:** Describe the interaction with the human subject to include the study intervention that he/she will experience. Provide sufficient detail in chronological order for a person uninvolved in the study to understand what the human subject will experience. Provide a schedule (e.g., flowchart or diagram) of

- study evaluations and follow-up procedures. Discuss how compliance with regulatory considerations will be established, monitored, and maintained, as applicable.
- Clinical Monitoring Plan: Describe how the study will be conducted and monitored for Good Clinical Practice compliance by an independent clinical trial monitor (or clinical research associate). The monitoring plan should describe the types of monitoring visits to be conducted, the intervals (based on level of risk), how corrective actions will be reported to the Sponsor and PI, and how they will be corrected and prevented by the clinical trial site/PI.
- Attachment 8: Data Management (no page limit): Upload as "Data\_Manage.pdf." The Data Management attachment should include the components listed below.
  - Data Management: Describe all methods used for data collection to include the following:
    - **Identifiers:** Describe the unique identifiers or specific code system to be used to identify human subjects, if applicable.
    - Confidentiality:
      - Explain measures taken to protect the privacy of human subjects and to maintain confidentiality of study data. Strategies to protect the privacy and confidentiality of study records, particularly those containing identifying information, should be addressed.
      - Address who will have access to study records, data, and specimens, including an acknowledgment that representatives of the DoD are eligible to review study records.
      - ❖ Address requirements for reporting sensitive information to state or local authorities.
    - Data capture, storage, verification, and disposition: Describe how data will be captured and verified. Describe where data (both electronic and hard copy) will be stored, who will keep the data, how the data will be stored, the process for locking the database at study completion, and the length of time data will be stored. Describe the proposed database, how it will be developed and validated, and its capability to safeguard and maintain the integrity of the data. Outline the plan to store data for future use to include considerations for informed consent and providing human subjects with an opportunity to decline participation in the study.
    - **Sharing study results:** In cases where the human subject could possibly benefit medically or otherwise from the information, explain whether or not the results of screening and/or study participation will be shared with human subjects or their

primary care provider, to include results from any screening or diagnostic tests performed as part of the study.

#### Evaluations:

- Data to be collected and schedule: All data that will be collected for study purposes must be clearly stated. The collection schedule must also be clearly described.
- Evaluations to be made: Describe all evaluations that will be made for study purposes. Explain how the results of the evaluations will be used to meet the objectives of the study (or to monitor safety of human subjects).
- Attachment 9: Study Personnel and Organization (no page limit): Start each
  document on a new page. Combine into one document and upload as
  "Personnel.pdf." The Study Personnel and Organization attachment should include the
  components listed below.
  - Organizational Chart: Provide an organizational chart that identifies key members of the study team and provides an outline of the governing structure for multi-institutional studies. Identify collaborating organizations, centers, and/or departments and name each person's position on the project. Identify the data and clinical coordinating center(s) and note any involvement from Contract Research Organizations, as appropriate. While there is no specified format for this information, a table(s) or diagram is recommended.
  - Study Personnel Description: Briefly describe the roles of the individuals listed in the organizational chart on the project. Describe relevant experience and qualifications that demonstrate appropriate expertise for the given role. An external research monitor (if applicable) and study coordinator(s) should be included.
  - Study Management Plan: Provide a plan for ensuring the standardization of procedures among staff and across sites (if applicable). If the proposed clinical study is multi-institutional, clearly describe the multi-institutional structure governing the research protocol(s) across all participating institutions. Provide a regulatory submission plan for the master protocol and master consent form by the lead organization; include a single IRB/EC pathway whenever possible. If applicable, describe how communication and data transfer between the collaborating institutions will occur, as well as how data obtained during the study will be handled and shared.
- Attachment 10: Surveys, Questionnaires, and Other Data Collection Instruments (no page limit): Upload as "Surveys.pdf." The Surveys, Questionnaires, and Other Data Collection Instruments attachment should include a copy of the most recent version of surveys, questionnaires, data collection forms, rating scales, interview guides, or other instruments. For each instrument, describe how the information collected is related to the objectives of the study. Describe how and when the instrument(s) will be administered. Describe how the instrument(s) will be adapted to the subject population, if applicable.

- Attachment 11: Impact and Military Relevance Statement (two-page limit). Upload as "ImpactMilRel.pdf." Describe the potential impact of delivery of ABA services for the volunteer population(s) that will participate in the proposed intervention. Describe how the volunteer population(s) represents the target population that would benefit from the intervention. Clearly articulate how the proposed research will inform the continuation of ABA services for TRICARE beneficiaries diagnosed with ASD. If a non-TRICARE beneficiary population will be used for the proposed research project, explain how the population simulates the targeted population (TRICARE beneficiaries). Describe any potential issues that might limit the impact of the proposed clinical study.
- Attachment 12: DoD Military Budget Form(s), if applicable: Upload as "MFBudget.pdf." If a military facility (MHS facility, research laboratory, medical treatment facility, dental treatment facility, or a DoD activity embedded with a civilian medical center) will be a collaborator in performance of the project, complete the DoD Military Budget Form, available for download on the eBRAP "Funding Opportunities & Forms" web page (https://ebrap.org/eBRAP/public/Program.htm), including a budget justification, for each military facility as instructed. The costs per year should be included on the Grants.gov Research and Related Budget form under subaward costs. Refer to the General Application Instructions, Section III.A.7, for detailed information.

## Extramural and Intramural Applications –

**Research & Related Senior/Key Person Profile (Expanded):** For extramural submissions (via Grants.gov), refer to the General Application Instructions, Section III.A.3, and for intramural submissions (via eBRAP), refer to the General Application Instructions, Section IV.A.2, for detailed information.

- o PI Biographical Sketch (five-page limit): Upload as "Biosketch\_LastName.pdf." The suggested biographical sketch format is available on the "Funding Opportunities & Forms" web page (<a href="https://ebrap.org/eBRAP/public/Program.htm">https://ebrap.org/eBRAP/public/Program.htm</a>) in eBRAP. The NIH Biographical Sketch may also be used. All biographical sketches should be submitted in the portable document format (pdf) that is not editable.
- PI Previous/Current/Pending Support (no page limit): Upload as "Support\_LastName.pdf."
- Key Personnel Biographical Sketches (five-page limit each): Upload as "Biosketch\_LastName.pdf."
- Key Personnel Previous/Current/Pending Support (no page limit): Upload as "Support\_LastName.pdf."

**Research & Related Budget:** For extramural submissions (via Grants.gov), refer to the General Application Instructions, Section III.A.4, and for intramural submissions (via eBRAP), refer to the General Application Instructions, Section IV.A.3, for detailed information.

**Budget Justification (no page limit): Upload as "BudgetJustification.pdf."** The budget justification for the entire period of performance must be uploaded to the Research & Related Budget after completion of the budget for Period 1.

**Project/Performance Site Location(s) Form):** For extramural submissions (via Grants.gov), refer to the General Application Instructions, Section III.A.5, and for intramural submissions (via eBRAP), refer to the General Application Instructions, Section IV.A.4, for detailed information.

## • Extramural Applications Only –

**R&R Subaward Budget Attachment(s) Form (if applicable):** Refer to the General Application Instructions, Section III.A.6, for detailed information.

- Extramural Subaward: Complete the Research & Related Subaward Budget Form through Grants.gov. (Refer to the General Application Instructions, Section III.A.6, for detailed information.)
- o **Intramural DoD Collaborator(s):** Complete the DoD Military Budget Form and upload to Grants.gov as Attachment 12. (Refer to the General Application Instructions, Section III.A.7, for detailed information.) Intramural DoD Collaborator(s) costs per year should be included on the Grants.gov Research and Related Budget form under subaward costs.

## II.D.3. Dun and Bradstreet Data Universal Numbering System (DUNS) Number and System for Award Management (SAM)

Applicant organizations and all subrecipient organizations must have a DUNS number to submit applications to Grants.gov. The applicant organization must also be registered in the Entity Management functional area of the SAM with an "Active" status to submit applications through the Grants.gov portal. Verify the status of the applicant's organization's Entity registration in SAM well in advance of the application submission deadline. Allow 3 to 4 weeks to complete the entire SAM registration process. If an applicant has not fully complied with the requirements at the time the Federal awarding agency is ready to make a Federal award, the Federal awarding agency may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant. Refer to Section III of the General Application Instructions for further information regarding Grants.gov requirements.

#### II.D.4. Submission Dates and Times

All submission dates and times are indicated in <u>Section I, Overview of the Funding Opportunity</u>. Pre-application and application submissions are required. The pre-application and application submission process should be started early to avoid missing deadlines. There are no grace periods. Failure to meet either of these deadlines will result in submission rejection.

## **Applicant Verification of Full Application Submission in eBRAP**

Prior to the end of the application verification period, PIs and organizational representatives can review and modify in eBRAP certain components of a submitted application. Following retrieval and processing of the full application, eBRAP will notify the organizational representatives and PI by email to log into eBRAP to review, modify, and verify the full application submission. eBRAP will validate retrieved files against the specific Program Announcement requirements and discrepancies will be noted in both the email and in the Full Application Files tab in eBRAP. eBRAP does not confirm the accuracy of file content. It is the applicant's responsibility to review all application components and ensure proper ordering as specified in the Program Announcement. *If either the Project Narrative or the budget fails eBRAP validation or needs to be modified, an updated full application package must be submitted prior to the application submission deadline.* The Project Narrative and Budget Form cannot be changed after the application submission deadline.

## **II.D.5.** Funding Restrictions

The maximum period of performance is 4 years.

The anticipated total costs (combined direct and indirect costs) budgeted for the entire period of performance will not exceed \$7M. If indirect cost rates have been negotiated, indirect costs are to be budgeted in accordance with the organization's negotiated rate. No budget will be approved by the Government exceeding \$7M total costs or using an indirect cost rate exceeding the organization's negotiated rate.

All direct and indirect costs of any subaward or contract must be included in the total direct costs of the primary award.

The applicant may request the entire maximum funding amount for a project that may have a period of performance less than the maximum 4 years.

For this award mechanism, direct costs must be requested for:

• Travel for the PI to attend annual IPR meetings in the National Capital Region. Costs associated with travel to these meetings should be included in each year of the award of the budget. These travel costs are in addition to those allowed for scientific/technical meetings.

May be requested for (not all-inclusive):

- Salary
- Research supplies
- Research-related subject costs
- Clinical study costs
- Support for multidisciplinary collaborations, including travel

• Travel costs for up to two investigators to travel to one scientific/technical meeting per year in addition to the required meetings described above

Must not be requested for:

Preclinical research costs

Extramural (non-Federal) awards will consist solely of assistance agreements (Cooperative Agreements and Grants). For extramural awards with an intragovernmental component, direct transfer of funds from an extramural award recipient to a DoD or other Federal agency is not allowed except under very limited circumstances. Funding to intramural DoD and other Federal agencies will be managed through a direct funds transfer. Intragovernmental only funding to intramural DoD and other Federal agencies will be managed through a direct funds transfer. Intramural applicants are responsible for coordinating through their agency's procedures the use of contractual or assistance funding awards or other appropriate agreements to support extramural collaborators.

Refer to the General Application Instructions, Section III.A.4, for budget regulations and instructions for the Research & Related Budget. For Federal agencies or organizations collaborating with Federal agencies, budget restrictions apply as are noted in Section III.A.4. of the General Application Instructions.

The CDMRP expects to allot approximately \$7M of the FY17 PH/TBIRP appropriation to fund approximately one ABACS Award application, depending on the quality and number of applications received. Funding of applications received in response to this Program Announcement is contingent upon the availability of Federal funds for this program.

## **II.D.6.** Other Submission Requirements

Refer to the General Application Instructions, Appendix 4, for detailed formatting guidelines.

## **II.E. Application Review Information**

#### II.E.1. Criteria

#### II.E.1.a. Peer Review

To determine technical merit, all applications will be evaluated according to the following scored criteria, which are of equal importance:

## • Military Benefit and Clinical Impact

- How well the study will provide a thorough and detailed understanding of the outcomes of the tiered model for ABA services delivered to those diagnosed with ASD.
- How well the proposed study will determine whether those receiving ABA services demonstrate improvements in cognitive and adaptive functioning.

- How well the study will ultimately lead to improvements in the delivery of ABA for TRICARE beneficiaries diagnosed with ASD.
- How well the study population represents the targeted patient population that might benefit from the findings of this study.
- o To what degree potential issues may limit the impact of the proposed clinical study and whether the PI provided alternative strategies to address potential issues.

## • Research Strategy

- How well the rationale for the study is supported by the preliminary data, critical review and analysis of the literature, and/or laboratory/preclinical evidence.
- How well the study aims, hypotheses or objectives, experimental design, methods, data collection procedures, and analyses are designed to answer clearly the clinical goals.
- Whether the study variables (in addition to those listed under Award Description) are appropriately defined and designed to meet the goals of the project.
- How well the inclusion and randomization criteria meet the needs of the proposed clinical study.
- How well the exclusion criteria are justified.
- How well plans for data collection, data management and-subsequent analyses are addressed.
- Whether the database described appropriately safeguards and maintains the integrity of the data being collected.
- To what degree the data collection instruments (e.g., surveys, questionnaires) are appropriate to the proposed study.

#### Statistical Plan

- To what degree the statistical model and data analysis plan is suitable for the planned study.
- How the statistical plan, including sample size projections and power analysis, is adequate for the study and all proposed correlative studies.
- Whether the statistical plan compensates for the use of a subpopulation of a recruited sample population to ensure appropriate power can be achieved within the subpopulation study, if applicable.

#### • Recruitment, Accrual, and Feasibility

- How well the application addresses the availability of human subjects for the clinical study and the prospect of their participation.
- How well the application demonstrates access to the proposed human subject population(s).
- Although not required, whether the study includes TRICARE beneficiaries with ASD in the study population.
- The degree to which the recruitment, informed consent, screening, and retention processes for human subjects will meet the needs of the proposed clinical study.
- How well the application identifies possible delays (e.g., slow accrual, attrition) and presents adequate contingency plans to resolve them.
- o To what extent the proposed clinical study might affect the daily lives of the individual human subjects participating in the study (e.g., Will human subjects still be able to take their regular medications while participating in the clinical study? Are human subjects required to stay overnight in a hospital?).

#### • Ethical Considerations

- How well the level of risk to human subjects is minimized and how the safety monitoring and reporting plan is appropriate for the level of risk.
- Whether a research monitor with expertise consistent with the nature of the potential risk(s) is identified, if applicable.
- How well the evidence shows that the procedures are consistent with sound research design and, when appropriate, that these procedures are already in use for diagnostic or treatment purposes.
- o To what degree privacy issues are appropriately considered.
- o To what degree the process for seeking informed consent is appropriate and whether safeguards are in place for vulnerable populations.

#### Personnel and Communication

- Whether the composition of the study team (e.g., study coordinator, statistician) is appropriate.
- To what degree the study team's background and expertise are appropriate to accomplish
  the proposed work (e.g., statistical expertise, expertise in the disease, and clinical
  studies).

- To what degree the levels of effort of the study team members are appropriate for successful conduct of the proposed study.
- How well the logistical aspects of the proposed clinical study (e.g., communication plan, data transfer and management, standardization of procedures) meet the needs of the proposed clinical study.

In addition, the following unscored criteria will also contribute to the overall evaluation of the application:

## Budget

- Whether the total (combined direct and indirect) maximum costs are equal to or less than
  the allowable total (combined direct and indirect) maximum costs as published in the
  Program Announcement.
- Whether the budget is appropriate for the proposed research.

#### Environment

- To what degree the scientific environment, clinical setting, and the accessibility of institutional resources support the clinical study at each participating center or institution (including collaborative arrangements).
- Whether there is evidence for appropriate institutional commitment from each participating institution.
- o If applicable, to what degree the intellectual and material property plan is appropriate.

## • Application Presentation

o To what extent the writing, clarity, and presentation of the application components influence the review.

## **II.E.1.b.** Programmatic Review

To make funding recommendations and select the application(s) that, individually or collectively, will best achieve the program objectives, the following criteria are used by programmatic reviewers:

- Ratings and evaluations of the peer reviewers
- Relevance to the mission of the DHP and PH/TBIRP, as evidenced by the following:
  - Adherence to the intent of the award mechanism
  - Relative impact
  - o Military relevance

## **II.E.2.** Application Review and Selection Process

All applications are evaluated by scientists, clinicians, and consumers in a two-tier review process. The first tier is peer review of applications against established criteria for determining technical merit. Each application is evaluated for its own merit, independent of other applications. The second tier is a programmatic review that makes recommendations for funding to the Commanding General, USAMRMC, on behalf of the DHA and the OASD(HA), based on technical merit, the relevance to the mission of the DHP and PH/TBIRP, the specific intent of the award mechanism, and to other specified evaluation criteria in the Program Announcement. Programmatic review is a comparison-based process in which applications with scientific and technical merit compete in a common pool. *The highest-scoring applications from the first tier of review are not automatically recommended for funding. Funding recommendations depend on various factors as described in Section II.E.1.b, Programmatic Review.* Additional information about the two-tier process used by the CDMRP can be found at http://cdmrp.army.mil/about/fundingprocess.shtml.

All CDMRP review processes are conducted confidentially to maintain the integrity of the merit-based selection process. Panel members sign a statement that application and evaluation information will not be disclosed outside the panel. Violations of confidentiality can result in the dissolving of a panel(s) and other corrective actions. In addition, personnel at the applicant or collaborating organizations are prohibited from contacting persons involved in the review process to gain protected evaluation information or to influence the evaluation process. Violations of these prohibitions will result in the administrative withdrawal of the organization's application. Violations by panel members or applicants that compromise the confidentiality of the review process may also result in suspension or debarment from Federal awards. Furthermore, the unauthorized disclosure of confidential information of one party to another third party is a crime in accordance with 18 USC 1905.

## **II.E.3.** Integrity and Performance Information

Prior to making an assistance agreement award where the Federal share is expected to exceed the simplified acquisition threshold (currently \$150,000) over the period of performance, the Federal awarding agency is required to review and consider any information about the applicant that is available in the Federal Awardee Performance and Integrity Information System (FAPIIS).

An applicant, at its option, may review FAPIIS, accessible through SAM, and submit comments to FAPIIS on any information about itself that a Federal awarding agency previously entered and is currently available in FAPIIS.

The Federal awarding agency will consider any comments by the applicant, in addition to other information in the designated integrity and performance system, in making a judgment about the applicant's integrity, business ethics and record of performance under Federal awards when determining a recipient's qualification prior to award, according to the qualification standards of the Department of Defense Grant and Agreement Regulations (DoDGAR), Section 22.415.

## **II.E.4.** Anticipated Announcement and Federal Award Dates

All application review dates and times are indicated in <u>Section I, Overview of the Funding Opportunity</u>.

Each PI and organization will receive email notification of posting of the funding recommendation in eBRAP. Each PI will receive a peer review summary statement on the strengths and weaknesses of the application.

#### II.F. Federal Award Administration Information

#### **II.F.1. Federal Award Notices**

Awards will be made no later than September 30, 2018. Refer to the General Application Instructions, Appendix 2, for additional award administration information.

Awards are made to organizations, not to individual PIs. The types of awards made under the Program Announcement will be assistance agreements (grants or cooperative agreements). The level of involvement on the part of DoD during project performance is the key factor in determining whether to award a grant or cooperative agreement.

Extramural Organizations: An assistance agreement (grant or cooperative agreement) is appropriate when the Federal Government transfers a "thing of value," to a "state, local government," or "other recipient," to carry out a public purpose of support or stimulation authorized by a law of the United States, instead of acquiring property or service for the direct benefit and use of the U.S. Government. An assistance agreement can take the form of a grant or cooperative agreement. If "no substantial involvement" on the part of the funding agency is anticipated, a grant award will be made (31 USC 6304). Conversely, if substantial involvement on the part of the funding agency is anticipated, a cooperative agreement will be made (31 USC 6305). Substantial involvement may include collaboration, participation, or intervention in the research to be performed under the award. The award type, along with the start date, will be determined during the negotiation process.

After email notification of application review results through the eBRAP, and if selected for funding, a representative from the USAMRAA will contact the business official authorized to negotiate on behalf of the PI's organization.

Only an appointed USAMRAA Grants Officer may obligate the Government to the expenditure of funds. No commitment on the part of the Government should be inferred from discussions with any other individual. The award document signed by the Grants Officer is the official authorizing documents.

*Intramural Organizations:* Awards to Federal Government organizations (to include intramural DoD organizations) will be executed through the Military Interdepartmental Purchase Request (MIPR) or Funding Authorization Document (FAD) process. Transfer of funds is contingent upon appropriate safety and administrative approvals. Intramural applicants and collaborators

are reminded to coordinate receipt and commitment of funds through their respective resource managers (RM).

After email notification of application review results through the eBRAP, and if selected for funding, a representative from the CDMRP will contact the business official authorized to negotiate on behalf of the PI's organization.

## **II.F.1.a.** PI Changes Award Transfers

Changes in PI are not allowed, except under extenuating circumstances that will be evaluated on a case-by-case basis and at the discretion of the Grants Officer.

The organizational transfer of an award supporting a clinical study is strongly discouraged and in most cases will not be allowed. Approval of a transfer request will be on a case-by-case basis at the discretion of the Grants Officer. An organizational transfer of an award will not be allowed in the last year of the (original) period of performance or any extension thereof.

Refer to the General Application Instructions, Appendix 2, Section B, for general information on organization or PI changes.

## II.F.2. Administrative and National Policy Requirements

In addition to written progress reports, in-person presentations are required.

Applicable requirements in the DoDGAR found in 32 CFR, Chapter 1, Subchapter C, and 2 CFR Chapter XI, apply to grants and cooperative agreements resulting from this Program Announcement.

Refer to the General Application Instructions, Appendix 2, for general information regarding administrative requirements.

Refer to the General Application Instructions, Appendix 5, for general information regarding national policy requirements.

Refer to full text of the <u>USAMRAA General Research Terms and Conditions for Institutions of Higher Education, Hospitals, and Non-Profit Organizations</u> and the <u>USAMRAA General</u> Research Terms and Conditions with For-Profit Organizations for further information.

#### II.F.3. Reporting

Refer to the General Application Instructions, Appendix 2, Section A, for general information on reporting requirements.

Quarterly, annual, and final technical progress reports, including quad charts, will be required.

Awards resulting from this Program Announcement will incorporate additional reporting requirements related to recipient integrity and performance matters. Recipient organizations that have Federal contract, grant, and cooperative agreement awards with a cumulative total value

greater than \$10,000,000 are required to provide information to FAPIIS about certain civil, criminal, and administrative proceedings that reached final disposition within the most recent 5-year period and that were connected with performance of a Federal award. Recipients are required to disclose semiannually information about criminal, civil, and administrative proceedings as specified in the applicable Terms and Conditions. The applicable Terms and Conditions for institutions of higher education, hospitals, and nonprofit organizations are available in OAR Article I, Section B, in the July 2016 R&D General Terms and Conditions. The applicable Terms and Conditions for for-profit organizations are available in Section 34 of the February 2017 USAMRAA General Research Terms and Conditions with For-Profit Organizations.

## **II.G. Federal Awarding Agency Contacts**

## **II.G.1. CDMRP Help Desk**

Questions related to Program Announcement content or submission requirements as well as questions related to the pre-application or intramural application submission through eBRAP should be directed to the CDMRP Help Desk, which is available Monday through Friday from 8:00 a.m. to 5:00 p.m. ET. Response times may vary depending upon the volume of inquiries.

Phone: 301-682-5507

Email: <a href="mailto:help@eBRAP.org">help@eBRAP.org</a>

#### **II.G.2.** Grants.gov Contact Center

Questions related to extramural application submission through Grants.gov portal should be directed to the Grants.gov Contact Center, which is available 24 hours a day, 7 days a week (closed on U.S. Federal holidays). Note that the CDMRP Help Desk is unable to provide technical assistance with Grants.gov submission.

Phone: 800-518-4726; International 1-606-545-5035

Email: support@grants.gov

Sign up on Grants.gov for "send me change notification emails" by following the link on the Synopsis page for the Program Announcement or by responding to the prompt provided by Grants.gov when first downloading the Grants.gov application package. If the Grants.gov application package is updated or changed, the original version of the application package may not be accepted by Grants.gov.

## **II.H.** Other Information

## **II.H.1. Program Announcement and General Application Instructions Versions**

Questions related to this Program Announcement should refer to the Program name, the Program Announcement name, and the Program Announcement version code 20170516c. The Program

Announcement numeric version code will match the General Applications Instructions version code 20170516.

#### II.H.2. Administrative Actions

After receipt of applications, the following administrative actions may occur:

## II.H.2.a. Rejection

The following will result in administrative rejection of the application:

- Pre-application was not submitted.
- Project Narrative exceeds page limit.
- Project Narrative is missing.
- Budget is missing.
- Human Subject Recruitment and Safety Procedures (Attachment 6) is missing.
- Intervention (Attachment 7) is missing.
- Data Management (Attachment 8) is missing.
- Surveys, Questionnaires, and Other Data Collection Instruments (Attachment 10) is missing.

#### II.H.2.b. Modification

- Pages exceeding the specific limits will be removed prior to review for all documents other than the Project Narrative.
- Documents not requested will be removed.

## II.H.2.c. Withdrawal

The following may result in administrative withdrawal of the application:

- An FY17 ABACS Programmatic Panel member is named as being involved in the research proposed or is found to have assisted in the pre-application or application processes including, but not limited to, concept design, application development, budget preparation, and the development of any supporting documentation. A list of the FY17 ABACS Programmatic Panel members can be found at <a href="http://cdmrp.army.mil/phtbi/panels/panels17">http://cdmrp.army.mil/phtbi/panels/panels17</a> aba.
- The application fails to conform to this Program Announcement description to the extent that appropriate review cannot be conducted.

- Inclusion of URLs, with the exception of links in References Cited and Publication and/or Patent Abstract sections.
- Page size is larger than 8.5 inches x 11.0 inches (approximately 21.59 cm x 27.94 cm).
- To preserve the integrity of its peer and programmatic review processes, the CDMRP discourages inclusion of any employee of its review contractors having any role in the preparation, research or other duties for submitted applications. For FY17, the identities of the peer review contractor and the programmatic review contractor may be found at the CDMRP website (<a href="http://cdmrp.army.mil/about/2tierRevProcess">http://cdmrp.army.mil/about/2tierRevProcess</a>). Applications that include names of personnel from either of these companies will be administratively withdrawn unless plans to manage COIs are provided and deemed appropriate by the Grants Officer. Refer to the General Application Instructions, Appendix 3, for detailed information.
- Personnel from applicant or collaborating organizations are found to have contacted persons involved in the review process to gain protected evaluation information or to influence the evaluation process.
- Applications from extramural organizations, including non-DoD Federal agencies, received through eBRAP may be withdrawn.
- Applications submitted by an intramural DoD organization may be withdrawn if the intramural organization cannot coordinate the use of contractual, assistance, or other appropriate agreements to provide funds to extramural collaborators.
- The proposed project includes preclinical research.
- The PI does not meet the eligibility criteria.
- Evidence of access to the relevant study populations or resources is not provided at the time of submission.

#### II.H.2.d. Withhold

Applications that appear to involve research misconduct will be administratively withheld from further consideration pending organizational investigation. The organization will be required to provide the findings of the investigation to the USAMRAA Grants Officer for a determination of the final disposition of the application.

## II.H.3. Application Submission Checklist

<b>Application Components</b>	Action	Completed
SF424 (R&R) Application for Federal Assistance (Extramural submissions only)	Complete form as instructed.	
Summary (Tab 1) and Application Contacts (Tab 2) (Intramural submissions only)	Complete these tabs as instructed.	
	Project Narrative: Upload as Attachment 1 with file name "ProjectNarrative.pdf."	
Attachments	Supporting Documentation: Upload as Attachment 2 with file name "Support.pdf."	
	Technical Abstract: Upload as Attachment 3 with file name "TechAbs.pdf."	
	Lay Abstract: Upload as Attachment 4 with file name "LayAbs.pdf."	
	Statement of Work: Upload as Attachment 5 with file name "SOW.pdf."	
	Human Subject Recruitment and Safety Procedures: Upload as Attachment 6 with file name "HumSubProc.pdf."	
	Intervention: Upload as Attachment 7 with file name "Intervention.pdf."	
	Data Management: Upload as Attachment 8 with file name "Data_Manage.pdf."	
	Study Personnel and Organization: Upload as Attachment 9 with file name "Personnel.pdf."	
	Surveys, Questionnaires, and Other Data Collection Instruments: Upload as Attachment 10 with file name "Surveys.pdf."	
	Impact and Military Relevance Statement: Upload as Attachment 11 with file name "ImpactMilRev.pdf."	
	DoD Military Budget Form(s): Upload as Attachment 12 with file name "MFBudget.pdf," if applicable.	

<b>Application Components</b>	Action	Completed
Research & Related Senior/Key Person Profile (Expanded)	Attach PI Biographical Sketch (Biosketch_LastName.pdf) to the appropriate field.	
	Attach PI Previous/Current/Pending Support (Support_LastName.pdf) to the appropriate field.	
	Attach Biographical Sketch (Biosketch_LastName.pdf) for each senior/key person to the appropriate field.	
	Attach Previous/Current/Pending (Support_LastName.pdf) for each senior/key person to the appropriate field.	
Research & Related Budget (Extramural submissions only)	Complete as instructed. Attach Budget Justification (BudgetJustification.pdf) to the appropriate field.	
Budget (Intramural submissions only)	Complete the DoD Military Budget Form and justification.	
Project/Performance Site Location(s) Form	Complete form as instructed.	
R&R Subaward Budget Attachment(s) Form, if applicable	Complete form as instructed.	

#### APPENDIX 1: ACRONYM LIST

ABA Applied Behavior Analysis

ABACS Applied Behavior Analysis Clinical Study

ABACSA Applied Behavior Analysis Clinical Study Award

ACD Comprehensive Autism Care Demonstration

ASD Autism Spectrum Disorder

CDMRP Congressionally Directed Medical Research Programs

CFR Code of Federal Regulations

COI Conflict of Interest

DHA Defense Health Agency
DHP Defense Health Program
DoD Department of Defense

DoDGAR Department of Defense Grant and Agreement Regulations

DUNS Data Universal Numbering System

eBRAP Electronic Biomedical Research Application Portal

EC Ethics Committee

ET Eastern Time

FAD Funding Authorization Document

FAPIIS Federal Awardee Performance and Integrity Information System

FY Fiscal Year

HRPO Human Research Protection Office

ICH E6 International Conference on Harmonisation of Technical Requirements for

Registration of Pharmaceuticals for Human Use

IRB Institutional Review Board

LOI Letter of Intent

M Million

MHS Military Health System

MIPR Military Interdepartmental Purchase Request

NDAR National Database for Autism Research

NIH National Institutes of Health

OASD(HA) Office of the Assistant Secretary of Defense for Health Affairs

ORCID Open Researcher and Contributor ID, Inc.

ORP Office of Research Protections

PI Principal Investigator

RDT&E Research, Development, Test, and Evaluation

RM Resource Manager

SAM System for Award Management

SOW Statement of Work

USAMRAA U.S. Army Medical Research Acquisition Activity
USAMRMC U.S. Army Medical Research and Materiel Command

USC United States Code

PH/TBIRP Psychological Health and Traumatic Brain Injury Research Program